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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Eiji Oki

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EXAMINER

PHAM, TITO Q

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

04/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,397	Applicant(s) OKI ET AL.	
	Examiner TITO PHAM	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 20-23, 25, 42 and 43 is/are rejected.
- 7) ☒ Claim(s) 4-19, 24, 26-41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This communication is in response to amendment filed on January 20, 2009.

Claims 1-43 are pending.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 20-23, 25, 42, and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Oki et al. (US Pub. No. 2003/0161633), hereinafter Oki.

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

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under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding **claims 1 and 22**, Oki discloses a method and a GMPLS+IP/MPLS node (figure 22 node 3C) which is used in a network in which a GMPLS (Generalized Multi Protocol Label Switching) network (figure 22 optical network 8C) and an IP (Internet Protocol) network (figure 23 network 7C) are mixed, the GMPLS network comprising a node (figure 22 node 3C) having a GMPLS function (LSC function), the IP network comprising an IP/MPLS (Internet Protocol/Multi Protocol Label Switching) node (figure 22 node 2C), and which constitutes the GMPLS network (figure 22 network 8C), and which processes a GMPLS protocol (optical LS) and an IP/MPLS protocol (PSC), the GMPLS+IP/MPLS node comprising:

a device (figure 22 element 3C and figure 23 element 30C) which establishes a GMPLS label path of a packet layer (paragraph 296) with another GMPLS+IP/MPLS node in the GMPLS network (paragraphs 58 and 59); and

a device (figure 22 element 1C-3) which tunnel transfers (see figure 22; packet is tunneled through optical path) a packet transferred from the IP/MPLS node (figure 22 node 2C) with the other GMPLS+IP/MPLS node (figure 22 node 3C) through the GMPLS label path.

Regarding **claims 2 and 23**, all limitations in claims 1 and 22 are disclosed above. Oki further teaches a device which advertises link state information of the GMPLS label path of the packet layer to the IP/MPLS node by a router LSA (Label Switching Advertisement) as a normal link in the IP/MPLS node (figure 23, paragraphs 403).

Regarding **claims 3 and 25**, all limitations in claims 2 and 22 are disclosed above. Oki further teaches a device (figure 23 element 22C) which holds the link state information having the GMPLS label path of the packet layer advertised as the link; and a device (figure 23 element 23C) which holds link state information inside of the GMPLS network.

Regarding **claim 21**, all limitations in claim 1 are disclosed above. Oki further teaches an IP/MPLS node (figure 22 node 2C) which is connected to the GMPLS network, and which is provided with a device (figure 23 element 23C) which holds link state information having a GMPLS label path of the packet layer advertised as a link.

Regarding **claim 20**, Oki discloses an IP/MPLS node (figure 22 node 2C) which is used in a network in which a GMPLS network (figure 22 network 8C) and an IP network (network 7C) are mixed, the GMPLS network comprising a node (node 3C) having a GMPLS function, the IP network comprising an IP/MPLS node, and which is connected to the GMPLS network, and a GMPLS+IP/MPLS node which constitutes the GMPLS network and which is capable of processing a GMPLS protocol and an IP/MPLS protocol establishes a GMPLS label path of a packet layer with another GMPLS+IP/MPLS nodes in the GMPLS network (see figure 22),

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the IP/MPLS node comprising a device (figure 23 element 23C) which holds link state information having a GMPLS label path of the packet layer advertised as a link (paragraph 403).

Regarding **claim 42**, all limitations in claim 23 are disclosed above. Oki further teaches IP/MPLS node holds link state information having the GMPLS label path of the packet layer advertised as a link (figure 23 element 22C).

Regarding **claim 43**, all limitations in claim 22 are disclosed above. Oki further teaches providing an IP/MPLS node (figure 22 node 2C) which transfers a packet, and which advertises link state information of the GMPLS label path of the packet layer to another IP/MPLS node by a router LSA as a normal link in the IP/MPLS node (figure 23), and which holds link state information having the GMPLS label path of the packet layer advertised as the link from the GMPLS+IP/MPLS node or the other IP/MPLS node (figure 23 link state database 22C and 23C)(paragraph 403).

Allowable Subject Matter

5. Claims 4-19, 24, 26-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed January 20, 2009 have been fully considered but they are not persuasive.

On pages 19-20 of Remark, Applicant argues that Oki neither discloses nor suggests that the photonic routers 1C-1 to 1C-4 are capable of processing an IP/MPLS protocol in addition to a GMPLS protocol. Examiner respectfully disagrees. As seen in figure 2, the photonic routers 1C-1 to 1C-4 comprise packet switch 2C and optical switch 3C. Figure 22 also discloses the packet switch 2C is part of an IP network (paragraph 396). Since packet switch 2C is part of IP network and is part of photonic router 1C-1 to 1C-4, the photonic router 1C-1 to 1C-4 is capable of process IP protocol through packet switch 2C. Moreover, the packet switch 2C connects to optical switch 3C, optical switch 3C has to have an interface to process IP signal from packet switch 2C. Therefore optical switch 2C or photonic router 1C-2 is capable of processing an IP/MPLS protocol in addition to GMPLS in the optical network (E-LSP (packet) and O-LSP(lambda)).

On pages 20-21 of Remark, Applicant argues that the packet switch, IP network, and photonic switch in Oki do not correspond to an IP/MPLS node, IP network, and an GMPLS+IP/MPLS of Applicant's invention. Examiner respectfully disagrees. Each limitations of claim 1 are anticipated in claim 1 rejection above.

GMPLS supports packet switching, lambda (wavelength) switching, TDM switching, and fiber switching is well known in the art. One example is Applicant's Admitted Prior Art in page 4 of the specification. Figure 23 discloses an **GMPLS** integrated controller for photonic router (packet switch and optical switch). If a GMPLS controller is not used to control and process GMPLS protocol, what protocol would it be utilized for and why is it called GMPLS controller and not some other name?

On page 21, Applicant argues that the optical switch is not a GMPLS+IP/MPLS node. Examiner respectfully disagrees. The optical switch with a GMPLS controller is interfaced with an optical network (GMPLS, LSC, lambda switching as well known in the art) and an IP network (packet switch 2C). One skilled in the art would know that the optical node, as an edge node of photonic network (see figure 22), is capable of supporting both the IP protocol on the IP network side and an optical protocol (GMPLS) on the optical network side. Therefore the optical node is capable of supporting both IP and GMPLS protocol. And since the GMPLS controller at the photonic node is capable of establishing an optical path (GMPLS path) with another optical node, Oki does indeed disclose a GMPLS establishment between two GMPLS+IP/MPLS nodes.

On pages 21-22 of Remark, Applicant argues that Oki does not perform tunnel transfer between GMPLS+IP/MPLS node. Examiner respectfully disagrees. Figure 1 is the clearest indication of tunneling transfer. Tunneling by definition is one protocol envelops another protocol. IP protocol encapsulated within optical/photonic to be transported as seen in figure 1 is considered packet tunneling; the optical/photonic network provides a “tunnel” for packet transfer between packet switches. One skilled in the art knows that the tunneling is performed at the edge node of a network, in this case the photonic router in figure 22.

On pages 22-23 of Remark, Applicant argues that the “device that hold link state information” is provided/reside in an IP/MPLS node. Examiner respectfully disagrees. The claim language in claim 20 does not specifically state that the “device” is provided in an IP/MPLS node. Claim 20 states “the IP/MPLS node comprising a device.” Since the

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GMPLS integrated controller with an link state database is part of the photonic router including a packet switch, one skilled in the art would understand that the packet switch (IP/MPLS node) comprises the GMPLS controller as the controller is used to control the packet switch (IP/MPLS node).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TITO PHAM whose telephone number is (571)272-4122. The examiner can normally be reached on Monday-Friday 9AM-6PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on 571-272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TP

/Daniel J. Ryman/
Supervisory Patent Examiner, Art Unit 2419